

ATTACHMENT 11 BIKEWAY MASTER PLAN

5.B.4. Shared-Use Path

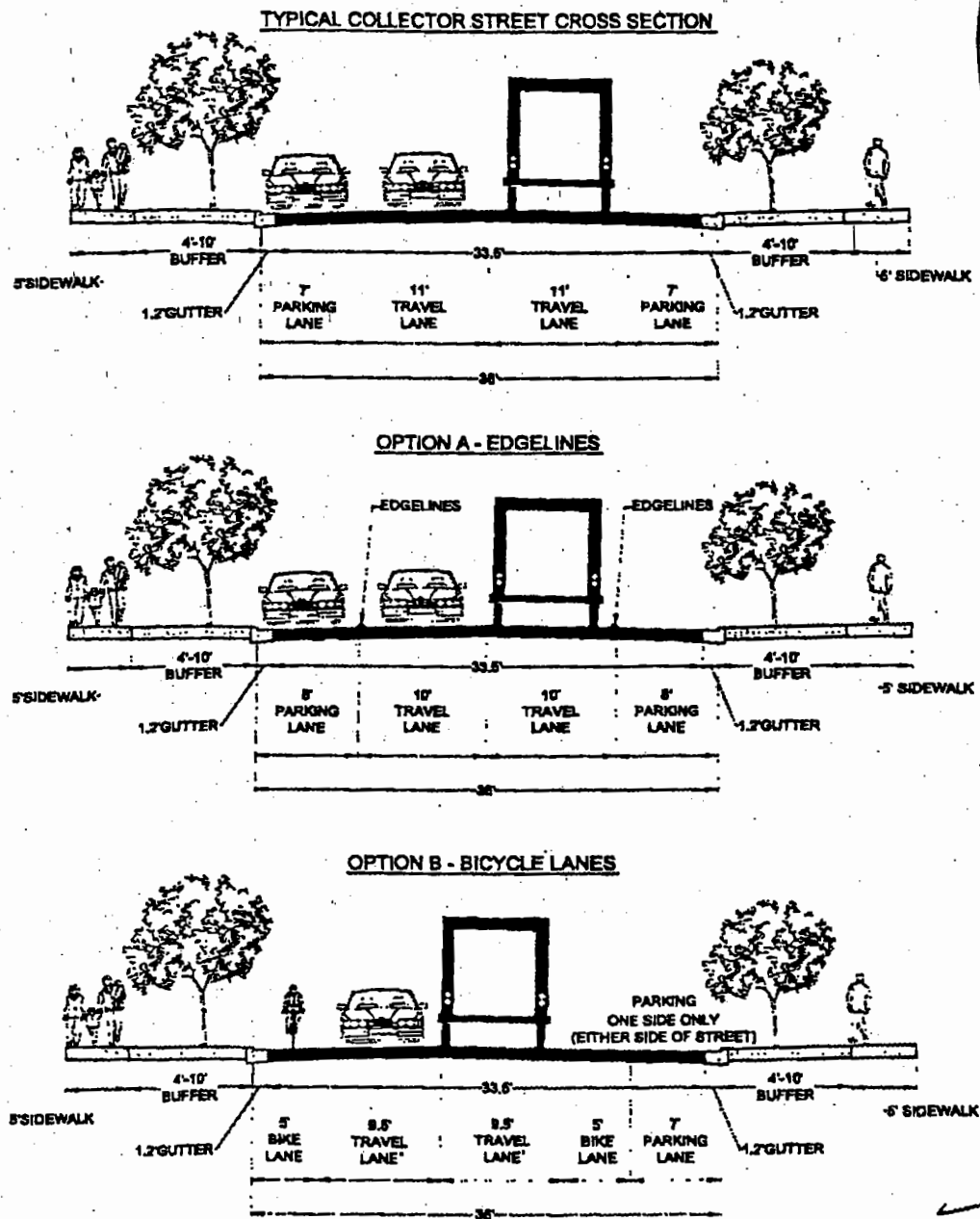
Shared-use paths are facilities on exclusive right-of-way with minimal cross flow of motor vehicles. Often referred to as trails, shared-use paths are intended to accommodate various non-motorized users including bicyclists, in-line skaters, walkers, runners, people with strollers, wheelchair users and dog walkers. These facilities are most commonly designed for two-way travel. The recommended minimum width for a shared-use path is 10 feet. In Rockville, there are many opportunities to widen sidewalks to 10 feet so that they serve as shared-use paths. Right-of-way constraints, such as utility poles, trees, ditches, and buildings and environmental constraints, such as wetlands and stream buffers, should be considered at potential sidepath locations. Where space is constrained, an 8-foot path width may be acceptable. Ideally, some buffer space is provided between the road and the sidepath, but right-of-way constraints may force the shared-use path to be constructed next to the curb. In these cases, the full shared-use path width is more important than the buffer.

Rockville should provide shared-use paths in parts of the bikeway network where there is heavy, fast traffic. Shared-use paths should not be used to preclude on-road bicycling but rather to supplement a system of on-road bicycle facilities. Shared-use paths that are adjacent to roadways can provide separation from heavy, fast-moving traffic and create more comfortable riding conditions, especially for less experienced cyclists. They can also be used to provide space for pedestrians and to serve schools. However, shared-use paths in the roadway right-of-way are less desirable when the roadway corridor has many driveways and intersections. Cyclists riding in the opposite direction of motor vehicle traffic and approaching from the right side of right-turning vehicles from intersecting streets and driveways (drivers look left) often come in conflict with these vehicles. In corridors with fewer driveways and intersections, these conflicts are less of a problem. For information on other design elements of shared-use paths, designers should refer to the AASHTO Guide.

5.B.5. Intersection Accommodation

Rockville should provide crosswalks, pedestrian/bicycle push-buttons and signals, median refuges and use tight turning radii to improve the safety and comfort of bicyclists at intersections. Due to the conflicts between motor vehicles and bicycles at intersections, special care and treatment must be provided at these locations. The AASHTO Guide and the MUTCD have recommendations on how to sign and stripe bike lanes at various types of intersections.

Figure 5. Alternative 36-foot Cross-Sections



* An engineering study should be done to determine the feasibility of providing narrow (9.5') travel lanes. This solution is generally appropriate on streets with slower speeds

F. Completion of the Baltimore Road bicycle path between the Millennium Trail and Rock Creek Regional Park

Rockville should complete the Baltimore Road shared-use path so bicyclists can ride between the Millennium Trail and the eastern edge of the City. To do this, a shared-use path should be constructed along Baltimore Road between the First Street section of the Millennium Trail and the western terminus of the existing Baltimore Road shared-use path (at Gladstone Drive). This section is a critical connection because it completes a connection between the center of the City and Civic Center Park, Rockville High School, Meadow Hall Elementary School and Rock Creek Regional Park. The completed Baltimore Road bicycle path will also serve neighborhoods on the east side of Rockville.

The City should also support the construction of a new path at the east end of Baltimore Road that connects Norbeck Road (MD 28) with the existing trail near Rock Creek. This section of path is immediately outside the City limits. Though there is an existing path in this area, the current facility is substandard and should be widened to 10 feet. Sections of trail that pass through environmentally-sensitive lands, such as the Rock Creek floodplain should undergo special study before widening.

Rockville should designate Twinbrook Parkway as a signed-shared roadway and possibly include bike lanes to direct bicyclists from Veirs Mill Road (MD 586) to the shared-use path on Baltimore Road. In addition, a shared-use path should be added to Avery Road to connect to the existing path on Norbeck Road (MD 28) and provide access to Rock Creek Park.

G. Connection of Northeast Rockville to the Rockville Metro Station and Town Center

All of Lincoln Park and Northeast Rockville are within easy bicycling distance of the Metro station and the Town Center. North Stonestreet Avenue, North Horners Lane, Loftstrand Lane, Taft Street and Southlawn Lane should be designated as signed-shared roadways. The east-west connection under the railroad tracks at Park Road is critical for bicyclists. In the short-term, the City should also install new curb ramps leading to the 7.5-foot sidewalks directly below the railroad bridge. Ultimately, shared-use paths should be added to both sides of the road between Hungerford Drive (MD 355) and Stonestreet Avenue. These improvements will make bicycling to destinations in downtown Rockville more attractive to neighborhood residents.]

H. Provision of Connections within Hungerford, Stoneridge and New Mark Commons

Bikeway linkages are needed to improve access to destinations such as Dogwood Park and Richard Montgomery High School in the Hungerford, Stoneridge and New Mark Commons neighborhoods south of Town Center. A shared-use path should be constructed along the south side of Fleet Street to provide access to the high school. In addition, a shared-use path should be included when Fleet Street is extended from Mount Vernon Place to Ritchie Parkway. In the future, the City should provide a shared-use path on the south side of the section of West Edmonston Drive between Wootton Parkway and MD 355. In the interim, the roadway should be designated as a signed-shared bike route. These improvements would be part of a potential

In the long-term, the City should explore the possibility of providing a major trail through Town Center, similar to the Georgetown Branch and Capitol Crescent Trails through downtown Bethesda.

D. Study of the provision of shared-use paths on both sides of Maryland Avenue between East Jefferson Street and Great Falls Road (MD 189)

The City should study the impacts of providing shared-use paths on both sides of Maryland Avenue between Jefferson Street (MD 28) and Great Falls Road (MD 189). Because it would serve as part of a regional bikeway network, the section between Jefferson Street (MD 28) and Fleet Street should be constructed first. In this section the shared-use paths would also improve bicycle access to Rockville City Hall, the Rockville Library, and the Montgomery County Council Office Building. These paths could be created by widening the existing sidewalks to 10 feet. Though there are no walls or steep slopes preventing this expansion, the City should consider impacts on existing signs and light poles. If additional space is needed to create the shared-use paths, the City should study narrowing the total roadway width by three to four feet, and striping 10 foot motor vehicle lanes. This would have the additional benefit of slowing both through and turning traffic in this pedestrian-oriented area of the City.

The section between Fleet Street and Great Falls Road (MD 189) should also be served by a shared-use path due to the heavy, fast traffic. The sidewalk in this section may be more difficult to expand because of utility poles, landscaping, and steep slopes close to the sidewalk. Further study will be needed to determine if this solution is feasible.

E. Study of bicycle facility alternatives along Veirs Mill Road (MD 586)

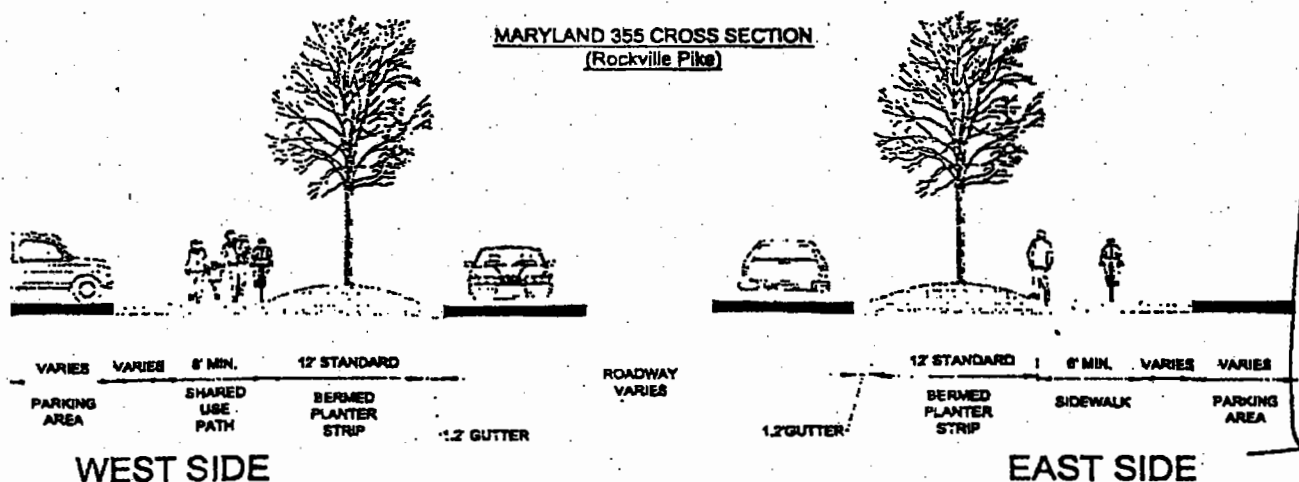
The City should provide bicycle facilities on both sides of Veirs Mill Road (MD 586). Like MD 355, the current configuration of MD 586 serves high volumes of motor vehicle traffic with little or no separation for bicyclists. Bike route signs should be added along the service roads between Gail Avenue and Bradley Avenue to encourage bicyclists to use these low-volume, low-speed streets as an alternative to Veirs Mill Road. Shared-use paths should be constructed on both sides of the roadway from the ends of the service roads to extend the bikeway west to First Street Trail and east to Twinbrook Parkway. The section of Veirs Mill Road east of Twinbrook Parkway should have shoulder bike lanes to connect the City's shared use paths to the Rock Creek Park bike trail. In the long-term, shared-use paths should be extended east from Twinbrook Parkway beyond the City limit. In the future, the City should explore the possibility of constructing a shared-use path between the intersection of Veirs Mill Road and First Street and the Rockville Metro Station.

Sections of these shared-use paths and bike lanes can be added as redevelopment occurs. A bikeway along this route will provide residents on the east side of the City with a direct route to Town Center.

355 right-of-way on the north side of the City, but signs would direct bicyclists interested in Town Center to bike lanes on the new section of Dawson Avenue and a signed-shared route on Maryland Avenue. Bicyclists could continue south on new shared-use paths on Maryland Avenue south of Jefferson Street and on Fleet Street and Edmonston Drive before returning to Rockville Pike. This regional bikeway network would connect to a new shared-use path on the west side of MD 355 in Gaithersburg and the North Bethesda Trail on the south side of Rockville.

Alternative regional bikeway routes parallel to MD 355 have been explored, and they are not feasible at this time. In the future, any redevelopment projects in the corridor should consider accommodating bikes to help provide a clear and direct north/south connection along MD 355.

Figure 4. Proposed Cross Section of MD 355



C. Provision of bicycle access within Town Center

New streets in the Town Center area will improve bicycle access for residents and visitors to downtown Rockville (Figure 3). The City should proceed with plans to provide bike lanes on the new sections of Dawson Avenue and on the reconstructed Beall Avenue and Middle Lane. The City should also provide bike lanes on Market Street when it is constructed. In addition, a shared-use path is recommended on the east side of North Washington Street to increase the comfort of bicyclists riding between the Post Office and Giant Food Store area and Town Center. Widening the sidewalk along the roadway to serve two-way bicycle traffic could provide an alternative connection between the MD 355 corridor regional network bikeway and Town Center. Both Maryland Avenue and Monroe Street should be designated as signed-shared roadways. Maryland Avenue should have special signs showing bicyclists in the MD 355 corridor to use the street to access destinations in Town Center.

Objective 1.1. Install the bike paths, lanes, signs, crossings, signals and other facilities recommended on the Rockville Bicycle Facilities Recommendations map.

The City has already constructed many miles of shared-use paths, striped bike lanes and signed bicycle routes that provide bicycle access around Rockville. Developers are required to build bike facilities through the Adequate Public Facilities Ordinance. The core of the Rockville Bikeway Network is taking shape, and a number of facilities should be constructed to increase the density and connectivity of the network. These projects are shown on the Rockville Bikeway Recommendations map (Figure 2). Several of the following projects are under construction or have received funding for design and construction and are considered complete.

A. Completion of the Millennium Trail

Originally referred to as the "Bicycle Beltway", the Millennium Trail continues to be a high priority project for the City. Significant progress has been made toward completion of the trail since the 1998 Plan was adopted. The only section of trail that remains to be completed is between Gude Drive and Edmonston Drive (across MD 355 and MD 586). The City received funding to design this section of trail in November 2002. When complete, this trail connection will provide a safe, convenient crossing of two major highways and will help facilitate east-west access across the City.

The City should continue to support the efforts of Montgomery County to improve and maintain the section of the Millennium Trail on East Gude Drive. This part of the 10-mile loop trail serves as an east-west connection on the north side of Rockville, but it is outside the City limits.

B. Development of a Regional Bikeway Network within the MD 355 Corridor

Rockville should provide bicycle access throughout the MD 355 corridor. Ultimately, an 8-foot-wide shared-use path (wide concrete sidewalk) should be constructed on the west side of MD 355 (Rockville Pike, Hungerford Drive and Frederick Road) to serve both pedestrians and bicyclists. The east side of the road should have a 6-foot sidewalk. In many ways, MD 355 operates as Rockville's "Main Street". It is also an important route for providing regional connectivity through Rockville. Numerous commercial and retail establishments are located along the street and could be accessed more safely and conveniently by bicycle if better accommodations were in place. The current configuration of MD 355 serves high-speed, high-volume automobile traffic with very little shoulder space and narrow sidewalks. The City should conduct a special analysis to determine the appropriate shared-use path design for each part of the corridor and develop a set of standards for future roadway and land use development in the corridor.

MD 355 can be improved by replacing the existing sidewalks with wider sidewalks that are separated from the roadway and parking lots (see Figure 4). This bikeway would serve Montgomery College, Town Center, Metro, the Convention Center, East Rockville and numerous shopping clusters and office buildings. It would also be within 1/2 mile of two high schools. Safe, convenient road crossings should be provided to access the Rockville and Twinbrook Metro stations. It is likely that the regional bikeway network would be in the MD